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CONTENTS

FRONTISPIECE: PORTRAIT OF GARDINER GREENE HUBBARD.

GARDINER GREENE HUBBARD.

REV. TEUNIS S. HAMLIN, D. D.
PROF. A. GRAHAM BELL.
SURG.-GEN. GEO. M. STERNBERG, U. S. A.
PROF. S. P. LANGLEY.
HON. WM. L. WILSON.
DR CAROLINE A. YALE.
PRESIDENT B. L. WHITMAN.
DR MARCUS BENJAMIN.
PRESIDENT D. C. GILMAN.
MAJOR JOHN W. POWELL.
HON. A. R. SPOFFORD.
HON. JOHN W. ROSS.
GENERAL A. W. GREELY, U. S. A.

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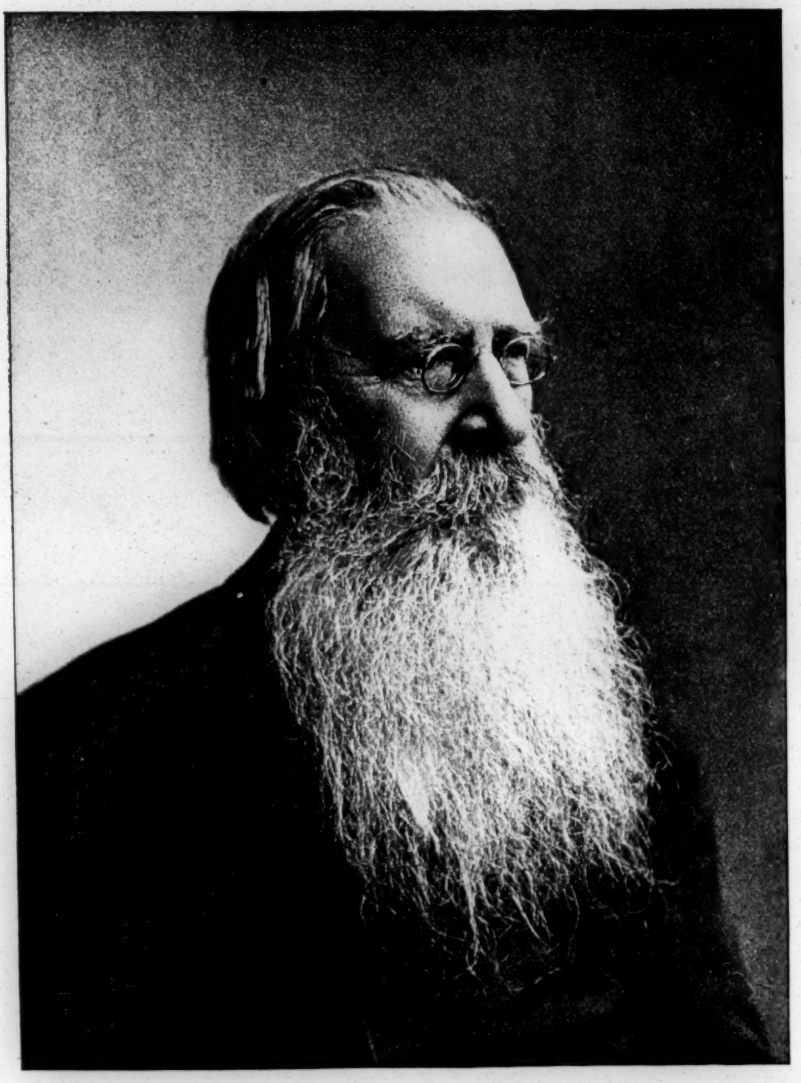


Gardiner Greene Hubbard

THE

National Geographic Magazine

VOL. IX FEBRUARY, 1898 No. 2

GARDINER GREENE HUBBARD

An Address delivered at the Memorial Services held at the Church of the Covenant, Washington, D. C., December 13, 1897,

By Rev. TEUNIS S. HAMLIN, D. D.

Our Capital city has lost its first citizen in civil life. The country and the world have lost a benefactor. Science, art, invention, discovery, the legal profession, philanthropy, broad-minded and generous culture, intelligent and refined hospitality are distinctly impoverished. Friendship of a pure, unselfish, persistent sort will miss a noble exemplar. Family life of the ideal type will have one less illustration among us. We are all personally bereaved today, and feel it our right to mingle our sorrows even with the more intimate grief of kindred, as we gather here to pay our last tribute of respect, reverence, and love.

Gardiner Greene Hubbard was descended from an educated and gentle ancestry on both sides for many generations. Physically, mentally, and morally his heredity, and so his personal nature, were of the best. He was born in Boston August 25, 1822. His father, Samuel, an alumnus of Yale and a doctor of laws from Yale, Dartmouth, and Harvard, was an accomplished lawyer, and during his last years a member of the Supreme Court of Massachusetts. His grandfather, William, was a successful merchant. Back of this the family is English, its first representative in America being William Hubbard, a graduate of Harvard in 1642; pastor for 38 years at Ipswich, Mass., and historian of New England. His mother, Mary, was the daughter of Gardiner Greene, of Boston, one of the most prosperous and eminent men of his day.

After careful preparation at the then, as now, excellent Boston schools, Mr Hubbard took a full course at Dartmouth in the class of 1841, and at once entered upon the study of law at Cambridge.

Admitted to the bar in 1843, he entered the office of Benjamin R. Curtis and remained with that eminent firm until its head came to this city to take his seat upon the Supreme Bench of the United States. For twenty years he practiced his profession in Boston and for five years longer in this capital, to which he was drawn by considerations of health and by our salubrious climate. It is so long since Mr Hubbard laid down his profession (almost twenty years) and he has since become so eminent in so many other activities that his real greatness as a lawyer has become obscured; but he was thorough in this as in all else. He was associated with Webster and other great men in many notable cases. Both Dartmouth College and Columbian University gave him a doctorate of laws. Had he devoted himself till life's close to his first pursuit he would have made and held a place among the leaders of the American bar.

Mr Hubbard very early evinced the far-sighted enterprise and the broad and active public spirit that characterized him to the last. Fixing his residence in Cambridge, he threw himself at once into all its municipal interests. He became president of the company that built the first street railroad in this country outside of New York city—that, namely, between Cambridge and Boston. He was for some ten years a member of the State Board of Education of Massachusetts. In 1860 he was led by the result of serious sickness in one of his own children to carefully investigate the possibility of teaching deaf mutes to speak. The idea had originated in Germany and been successfully applied in a few cases; but it remained for Mr Hubbard to make this, like several other things lying dormant or inefficient, widely or universally available. Convinced by personal study of what might be accomplished, and with an object-lesson before him in his own household, he gathered a half dozen pupils, employed a teacher, and opened a school in Chelmsford, near Boston, to which he was a most generous contributor for several years. Meanwhile he applied to the legislature for a charter only to be met with doubts, and discouraged as a visionary. But he persevered; took the pupils of his school, and even his own little daughter, before a legislative committee to demonstrate his success; and finally secured the founding of the Clarke school at Northampton, the best of its kind in the world, which he organized, of whose board of trustees he was the first president and a member till his death, and which, in telegraphing its condolence, says it "recognizes an immeasurable loss." In this great achievement Mr Hubbard opened the benefits and delights of language and of association, on practically equal terms with their fellowmen to a multitude

that had hitherto been doomed to live apart and to miss many of life's sweetest joys. His keen interest in this work never lagged, and he has for many years been first vice-president of the American Association to Promote the Teaching of Speech to the Deaf. This alone would entitle him to be called a benefactor of mankind.

These services, together with his high standing as a lawyer, and his very efficient labors as a commissioner from Massachusetts to the Centennial Exposition at Philadelphia, had given Mr Hubbard a national reputation; and in 1876 President Grant appointed him chairman of a special commission to investigate the entire question of railway mail transportation. His work here was characteristically thorough, and is to be chiefly credited with the present excellent condition of that important branch of the public service. From that time distinguished political preferments have been repeatedly offered him; but though the compliment was fully appreciated, the offer was always declined, since he believed independence of action to be best, both for himself and for the causes that he loved, and aimed to promote. During his residence of nearly a quarter of a century at this Capital he has been the trusted friend and counsellor of Presidents and statesmen, and has exercised a strong, if indirect, influence upon national and international affairs. He was a wise and staunch friend of arbitration. He believed that the Government should use its post-offices as telegraph stations. He was vitally interested in the free library of this city. He had long urged what is just now happily coming anew to the front, the establishment here of a true national university upon the lines drawn by Washington. He was an active and efficient trustee of the Columbian University. He cherished the keenest interest in his Alma Mater; was president of her Alumni Association in this city, and provided a lectureship at the college which is filled by his close and cherished friend, ex-Senator Dawes. President Tucker says: "The college honors the memory which has become a part of its lasting possessions." He was a regent of the Smithsonian Institution, and eminently fitted to be, for he was committed mind and heart and soul to "the increase and diffusion of knowledge among men."

And so, while not himself a specialist in science, Mr Hubbard became a promoter of science, and in a remarkable degree a friend of scientists. He felt a hearty and honest pride in our city's leading position as a scientific center in this country. Every earnest student of science was sure of his sympathy and encouragement. Nowhere outside of his own household will he be more missed than in the goodly scientific fellowship here, as nowhere has he been more honored and beloved. It was this fondness, probably,

that led him to cast such a wealth of thought and labor into the National Geographic Society, the beloved child of his old age. He carried it daily upon his heart. He planned for it constantly. He was never too busy or too weary to consult and act for its welfare. He had willing and efficient helpers; but no one will be more quick than they to say that the President made it what it was, easily the leading organization of its kind in the United States. The estimation in which he was held among the scientific men of the National Capital is shown by the fact that he was thrice elected President of the Joint Commission of the Scientific Societies of Washington, and held that honorable position from the formal organization of the Commission in 1895 until his death.

But, if not a technical scientist, Mr Hubbard's intense sympathy with science was supplemented by a wide and far from inaccurate knowledge. He was a close student of the electric, or magnetic, telegraph, and the late president of the Western Union Company said he had done more than any other man to make the service of that great corporation popularly available. His capacities in such directions were widely recognized, and for many years he was first vice-president of the American Association of Inventors and Manufacturers. One of his last labors was filling the semi-scientific position of Commissioner of Awards at the Tennessee Exposition. At the cost of immense care and very wide and protracted correspondence he formed his jury of fifty experts, and then spent three busy weeks in Nashville in directing and supervising their labors. So highly was his work appreciated that when death came there lay upon his desk an invitation to do the same thing next year at Omaha.

It was this scientific leaning, combined with a fine commercial talent and matured business judgment, that enabled him to render to the telephone that inestimable service by which, perhaps, he will be most widely known and longest remembered. In no sense its inventor, Mr Hubbard's unfaltering faith in its possibilities fitted him to take this product of the splendid genius of his son-in-law, Professor Bell, and make it practicably available and commercially profitable. When the invention—one of the greatest of the century—was to all intents and purposes complete, it had brought with it an enormous task. "A new art was to be taught to the world, a new industry created, business and social methods revolutionized." Mr Hubbard was the man for the hour. "It does speak," cried Sir William Thomson; and Mr Hubbard added, "I will make the world hear it." He did. What men thought a toy he showed to be a machine of price-

less value. He brought it into hourly use in this country, in England, on the continent of Europe, organizing the International, Oriental, and other companies, until, in less than a quarter of a century, it is conveying thought in every civilized language, and has become, more quickly than any other invention of history, a necessity of daily life and an untold blessing to mankind.

But this man of tireless energy and exhaustless capacity for varied enterprises does not diminish upon a closer view. He recognized his obligations as a citizen of this Capital, and met them promptly and well. He was governor of the Society of Colonial Wars in the District of Columbia. It was represented to him that the city should be made interesting and attractive by preserving some of its most notable historic houses, and suitably marking its historic sites. Instantly his mind assented and his heart was enlisted. He gave himself with ardor to the forming of the "Memorial Association of the District of Columbia," and it is largely through his efforts and influence that the Congress has purchased the house in which Mr Lincoln died and set it apart as a perpetual shrine of patriotic pilgrimage. He dispensed a generous and refined hospitality, not only or chiefly for his own pleasure—though he keenly enjoyed good society—but also because he recognized the duty of a suitable welcome to the city's and the nation's guests. It is many years since any man of distinction for real merits or valuable services has come to Washington without finding himself seated at Mr Hubbard's table, and among guests whom it was a pleasure and an honor to meet. He read the best books; and, while evincing no special talent as a writer, he had a fine literary taste and was a judicious and kindly critic. He had a passion for art, especially for etchings and engravings, in knowledge and appreciation of which he was a rare expert, and his collection is one of the finest in this country. Seldom was he seen to better advantage than when showing these treasures to some appreciative friend, when his fine face would beam with pleasure and his deep eye scan afresh every detail of beauty that he knew and loved so well.

Mr Hubbard was a man of marked purity of life, to whom a stain of any sort seemed utterly foreign. No one would have ventured upon coarseness of word or act in his presence. He was intensely conscientious. He was unselfish, willing to accept the efficient result of his labors, and let others get the praise. He could not be roused to resentment, and was often silent when friends thought he should speak and claim his rights. He served his fellowmen not only in the great ways already noted, but with unstinted gifts of thought and sympathy, and, if need be, of

money, in quiet, unmentioned ministries; and he served them also with what is by no means easiest to give—steadfast friendship. The number is very large of young men, and men not so young, whom Mr Hubbard drew to him and who regarded him as more than friend—as almost father. This single fact is one of the finest tributes possible to the beauty and strength of his character. His family life may hardly be mentioned here; but it is no intrusion to name what all who entered his beautiful home witnessed—a chivalrous, conjugal devotion and a tender love for children and grandchildren, most delightful to see, and that have now become sacred and blessed memories.

Mr Hubbard's love for this church was intense and unfailing. During the second year of its existence he succeeded Mr Justice Strong as president of its board of trustees and still held the office at his death. He served upon its building committee and builded his best thought and devotion into its walls. He planned and labored to have it minister to all that is high and pure and elevating for the community; and one of his latest wishes was that this fine organ should be used freely to give pleasure to the music-lovers of the city. Of his inmost religious experiences we may not speak too freely, for he himself was reticent about them. He confessed Christ in his early manhood in Boston under the ministry of the celebrated and godly Dr Edward N. Kirk, and later removed his church membership to Cambridge, whence he never brought it to this city. He was not clear about some points of metaphysical theology, and was too conscientious to do what would seem to commit him to anything that he did not fully believe. He was reverent, devout, sincere, aiming each day to shape his life on the plan of fidelity to his noblest ideals, to man and to God.

It is a unique life that has thus been led among us and that has now, amid universal grief, though as one has said with "exultation" in what it has been and has accomplished, sunk peacefully and gently to its close. One of the most competent judges writes: "When I say that I regarded him as the most useful citizen of Washington, I cannot say more of any man." What high and noble phase of the life of our city is not the poorer for his going, but also the richer for his having lived among us? What that is purest, truest, sweetest, most broad-minded, most generous-hearted, did he not illustrate and adorn? Man of faith and of action, scholar, lover of art, patriot, cosmopolitan, true friend, tender husband and father, who didst always live with thy face to the sun-rising! "Good night; and flights of angels sing thee to thy rest."

GARDINER GREENE HUBBARD

Memorial Meeting, held in the City of Washington, January 21, 1898, Prof. Alexander Graham Bell, LL. D., President of the National Geographic Society, presiding

ADDRESSES

Page

Introductory remarks by President A. Graham Bell 40

1. Address by Dr George M. Sternberg, Surgeon-General, U. S. A., Acting-President of the Joint Commission of the Scientific Societies of Washington, on behalf of the Joint Commission and the Scientific Societies 41

2. Prof. S. P. Langley, Secretary of the Smithsonian Institution, introducing Honorable William L. Wilson. 43

3. Honorable William L. Wilson, President of Washington and Lee University, ex-Postmaster-General, a Regent and Member of the Executive Committee of the Board of Regents of the Smithsonian Institution, on behalf of the Smithsonian Institution.. 43

4. Miss Caroline A. Yale, LL. D., Vice-President of the American Association to Promote the Teaching of Speech to the Deaf, and Principal of the Clarke School, Northampton, Mass., on behalf of the American Association to Promote the Teaching of Speech to the Deaf 46

5. Dr B. L. Whitman, President of Columbian University, on behalf of the University 50

6. Dr Marcus Benjamin, Historian of the Society of Colonial Wars, on behalf of that Society 53

7. Dr Daniel C. Gilman, President of Johns Hopkins University, on Gardiner Greene Hubbard as a Helper 57

8. Major John W. Powell, Director of the Bureau of American Ethnology, Associate Editor of *Science*, ex-Director of the U. S. Geological Survey, on behalf of the journal *Science* 59

9. Honorable A. R. Spofford, Assistant Librarian of the Congressional Library, Vice-President of the Columbia Historical Society, on behalf of the Columbia Historical Society 63

10. Honorable John W. Ross, Chairman of the Board of Commissioners of the District of Columbia, on behalf of the City and District 66

11. General A. W. Greely, Chief Signal Officer of the U. S. Army, Senior Vice-President of the National Geographic Society, on behalf of that Society 68

President BELL: A familiar face has departed from among us, and the place left vacant we cannot fill. The President of the National Geographic Society, the Honorable Gardiner Greene Hubbard, died December 11, at his home, Twin Oaks. He himself arranged for this meeting to commemorate the tenth anniversary of the founding of the National Geographic Society, and it has seemed peculiarly appropriate to the Board of Managers that it should be made also a memorial meeting to himself.

On behalf of the National Geographic Society, I desire to extend a very cordial welcome to the representatives of other scientific societies who are present with us on this occasion, and to the many personal friends of Mr Hubbard who have honored us with their presence.

Of the many letters of regret that have been received from gentlemen unable to attend, I will read but one. This letter is from the Executive Mansion, dated January 21, 1898. It is as follows:

"MY DEAR SIR: I beg leave to acknowledge the courteous invitation to attend the memorial meeting in honor of the late Gardiner G. Hubbard, to be held under the auspices of the National Geographic Society, at the First Congregational Church this evening.

"The President wishes me to express his sincere regret at his inability to be present at this meeting, as he would have been very glad to join with Mr Hubbard's friends in paying tribute to his high character and the commanding influence of his noble life.

(Signed) JOHN ADDISON PORTER,
Secretary to the President."

A large number of telegrams have also been received, but I shall read only the following cablegram from the Honorable Andrew D. White, Ambassador to Germany, who sends this message:

"I unite in very affectionate tribute to Mr Hubbard, a faithful friend, patriotic citizen, devoted public servant, and true man.

(Signed) ANDREW D. WHITE."

It will not be my place to speak to this assemblage of the interest and the work of Mr Hubbard in connection with the National Geographic Society, as that will be done by one far more competent, Gen. A. W. Greely. Mr Hubbard's heart has for many years been especially devoted to the Geographic Society. His last thoughts were of this Society and of this meeting, the tenth anniversary of its foundation. So peculiarly wrapt up in this Society was he that his family entrusted his remains to its

Board of Managers, the members of which personally carried his body to the grave.

Mr Hubbard was a man of large views. I know of no man who could take so broad a view of things as he could or who was so well fitted to occupy the position to which he was elected in this city, and which he esteemed above every other honor of his life, the position of President of the Joint Commission of the Scientific Societies of Washington. His views were not confined to narrow horizons. Without making any claim to be a specialist in science himself, he had an exceedingly clear conception of the relations of the sciences one to another, and he was therefore admirably fitted to be the president of such an organization as the Joint Commission. We who are more especially identified with the National Geographic Society feel that our friend and leader has been taken from us, and I know that in the Joint Commission a similar feeling is expressed. I will call upon Gen. George M. Sternberg, Surgeon-General of the United States Army, who is Acting-President of the Joint Commission of the Scientific Societies of Washington, to speak to us on behalf of that body.

Surgeon-General STERNBERG: It is my privilege to pay a brief tribute to the memory of my departed friend and late associate upon the Joint Commission of the Scientific Societies of Washington, Mr Gardiner G. Hubbard.

Mr Hubbard was elected President of the Joint Commission at a time when this organization was in a state of unstable equilibrium, due to differences of opinion as to the nature and extent of the powers which should be conferred upon it by the several societies whose governing boards constituted its membership. He looked upon it as an organization which, properly directed, might accomplish useful results in the diffusion of scientific information and which would prove a bond of union between the scientific societies of Washington and enable them to act together in matters of common interest. These objects commanded his sympathy and active coöperation, and from the time of its reorganization with increased membership and extended powers, in January, 1895, to the day of his death Mr Hubbard was the president of this body. We owe much to his experience and skill as a presiding officer, to his practical methods of dealing with business matters coming before the Executive Committee, and to his cordial sympathy with the objects in view. If, as we now hope, the Joint Commission, by a natural process of evolu-

tion, shall become the nucleus of a Washington Academy of Sciences, Mr Hubbard will always occupy an honorable place in the history of this Academy of Sciences. He was in the habit of disclaiming any pretensions to be considered a "scientific man." If only those who are engaged in scientific research work are properly so called, his modest disclaimer may be admitted; but it would be well for many of the scientific men of the country if they could take as broad a view and as intelligent an interest in the general progress of scientific knowledge and of applied science in all departments of human industry and art as that manifested by the late President of the Joint Commission.

His interest in science was catholic, and no doubt found its inspiration to a large extent in that genial and generous humanity which was so characteristic of him. Anything calculated to promote the comfort and happiness of those about him and of mankind in general was to him a matter of interest, and this kindly feeling led to the generous hospitality and cordiality of manner which all have experienced who enjoyed the privilege of his acquaintance. He quickly recognized merit and earnest effort in any department of human endeavor, and his ready sympathy and practical advice were always at command for the advancement of any good cause. With him acquaintance quickly ripened into friendship when he was brought into contact with one whose work and character commanded his respect.

Although his age and extensive personal interests might have excused him from active participation in the management of the affairs of the Joint Commission, he was too conscientious to neglect any of the duties pertaining to the office which he had accepted, and at meetings of the Executive Committee his kindly presence was seldom missed. Prompt in his attendance and expecting others to be equally punctual in keeping their appointments, he had a happy method of dispatching business and of checking unnecessary discussion and dilatory proceedings. He manifested no intention or desire to overrule the wishes of the majority in anything relating to the organization and interests of the Joint Commission, but as presiding officer did his best to promote harmony and to carry into effect the measures which were evidently favored by a majority of the members of the organization. So far as his relation to the Joint Commission and the scientific societies of Washington is concerned I have nothing to add, but I cannot close without expressing my personal sense of loss and bereavement. Although my acquaintance with

Mr Hubbard dated back only to the year 1893, I had learned to look upon him as a friend and to appreciate his cordial greeting when we met as one of the pleasant things in life.

He was so young at heart and in appearance that I scarcely realized that he was much my senior in years, and the announcement of his death after so brief an illness came to me as an unexpected shock. Those of us who knew him well will continue to cherish his memory as that of a public-spirited citizen, a lover of truth, a promoter of good works, and a trusted friend.

President BELL: Mr Hubbard was a Regent of the Smithsonian Institution and took great interest in its progress. I shall ask Professor Langley and the Hon. William L. Wilson, President of the Washington and Lee University and ex-Postmaster-General of the United States, to say a few words on behalf of the Smithsonian Institution.

Professor LANGLEY: I knew Mr Gardiner Hubbard for many years, and I owe some of the very pleasantest hours of my Washington life to the kindness and hospitality I received in his home. Among the many occupations of his own varied life there were few in which he took more interest or was more zealous than in his duties as Regent of the Smithsonian Institution. It might seem as if I, as Secretary of that Institution, could with propriety give an account of his relations to it. That, however, can be better given by another, and since we have here tonight the gentleman whose name has just been mentioned, the late Postmaster-General, who, as a resident of Washington, became not only a Regent but a member of the executive committee and a colleague of Mr Hubbard, and who comes here in spite of the engrossing duties of the University to speak to us tonight, I feel that I cannot do better than to give place to him and ask him to speak of one whom he knew so well in this connection, and whose relations as a colleague have been more intimate than mine.

Mr WILSON: To those who were permitted to enjoy the personal friendship of Mr Gardiner Hubbard and to garner up gracious memories of intimate association with him, the first and strongest impulse tonight naturally is to speak of him as a man, to recall and commemorate the qualities and virtues that lay at the foundation of all that he was and all that he did. The world outside the circle of his acquaintances may sometimes have regarded him merely as a man of large possessions; his occasional fellow-workers in the varied fields of his activity and interests doubtless regarded him as a man of great achievements. Those

who were privileged to enter the closer circle of personal friendship knew that however ample those possessions, however varied and admirable those achievements, they were much less than the man himself. They were the natural, almost the necessary, fruit of a clear intellect, a strong will, and, above all, a moral force that instinctively arrayed itself with generous sympathy on the side of the true, the beautiful, and the good.

The good causes of which Mr Hubbard was ever the discriminating and liberal, though modest, patron; the good work in which he was, to the very close of his life, an active participant, were not external to him; they were, one and all, part of his own nature. He was too self-respecting a man to court notoriety, either as a philanthropist or as a patron of education or science, by ostentatious benevolence.

Now that Mr Hubbard has gone from us forever, we begin to realize how large, how unique, and how beautiful a part he bore in the social, charitable, and intellectual life of his adopted city. Washington is doubtless destined to become more and more the residence of men who have won fame or fortune in other parts of the country, and come here to make their homes amid congenial surroundings, homes of hospitality, and not seldom homes of refinement and culture. Mr Hubbard did this and he did more than this. No home in Washington has dispensed a more charming and constant hospitality than his. He came to Washington with an acknowledged social position, with well known and honorable lineage, with liberal education and refined tastes, with large and successful experience in the business world, with a mind stored and broadened and liberalized by much reading and much contact with men and things in his own and other countries. For such a man it was inevitable that he should become associated with every form of charitable, educational, and scientific work in this country that appealed to a man of public and patriotic spirit, and if he became connected with them, it was as inevitable that he should become a leader in them.

His election, as Professor Bell has told us, to the presidency of the Joint Commission of the seven scientific societies of Washington is but one illustration of this. The Congress of the United States chose him a Regent of the Smithsonian Institution. His associates on the board made him a member of its executive committee, charged with a personal supervision of this institution and of the scientific department which Congress had placed under its administration.

Professor Langley has said that I would speak of him in this connection tonight, and yet what can I say of him here that would not be true of him in everything and in every duty that he assumed? It was not in the nature of Mr Hubbard—it was not the habit of his life—to be a mere ornamental holder of positions, to be a mere routine worker. High as was his personal regard and unstinted his admiration for the ability and scientific attainments of the Secretary of that institution and the heads of its bureaus, he wished, if possible, to press still forward; and at the last meeting of the Board of Regents, on his motion a committee was appointed, of which he was made chairman, to consider and report how the value and usefulness of these bureaus could be promoted.

So many sided was Mr Hubbard's character, so many sided were the activities of his life, that it is fitting that the tributes paid to him tonight should come from many friends and from many points of view; but, start from wherever they may, they will inevitably meet and blend in the common tribute to the man himself.

I have tried to speak of him with that studied moderation which I know would be most in accordance with his wishes. I have spoken of him as a man of public spirit, as a patron of education and science, and as a benefactor of his fellowmen.

I will draw aside the curtain of his home life only so far as to say that in all the relations of husband and father and grandfather he was the embodiment of courtesy, affection, and gentleness, the inbred traits of a born gentleman.

President BELL: Mr Wilson has referred to the philanthropic spirit of Mr Hubbard, and I will now invite your attention to a philanthropic work of his that was unique. In March, 1864, Mr Hubbard brought into the Massachusetts legislature a bill for the establishment of an oral school for deaf children. The schools of this country were taught by means of spelling on the fingers and by means of the French sign language. Many persons had suggested that oral schools like those in Germany, where the deaf had been taught to speak and to learn to read from the lips, should be established in America; but none had been established, until in March, 1864, Mr Hubbard made the first attempt to establish a school where deaf children could be taught to speak and to understand speech by the motions of the mouth without resort to signs or manual spelling on the fingers.

It is not my purpose to fully set forth his efforts in this direc-

tion, but simply to direct attention to the magnitude of the work that has resulted from those efforts. Last year there were more than 5,000 deaf children in the schools of the United States learning to speak and to read from the lips. There were over 3,600 pupils who were taught by the oral method alone, without resort to alphabets or the sign language. The percentage of pupils taught by speech since these early efforts of Mr Hubbard's has gone on increasing, increasing, increasing, until we know now with absolute certainty that the time will come when there will no longer be any deaf or dumb in this country, for all shall be taught to speak without resort to spelling or the French sign language. The instrumentalities through which this wonderful change has been effected are largely the Clarke school at Northampton, Mass., and the organization of a society to promote the teaching of speech to the deaf, known as the American Society. There are three great results that were originated by the movement of 1864: First, the teaching of speech to the deaf; second, lowering the age of instruction to the deaf (at that time no attempt was made to teach deaf children under 12 years of age), and last, but not least in importance, the employment of women as teachers of the deaf. Before that time the instructors were largely men; but the necessity of teaching speech to the very little child led to the employment of women. This fact and the improvement in the methods have been the secret of success in teaching speech to the deaf, and the work is now largely in the hands of women.

The American Association to Promote the Teaching of Speech to the Deaf is represented here tonight by its Vice-President, Miss Caroline A. Yale, LL. D., who is also the Principal of the Clarke School at Northampton, which sprang from Mr Hubbard's movement of 1864. Mr Hubbard has passed away, but he has breathed his spirit into us. In this work of teaching speech to the deaf there are hundreds of Mr Hubbard's friends. They are organized into a society, and they are working and accomplishing the result at which he aimed. The leader of this movement is with us tonight and will tell us something of the work. I introduce to you Dr Caroline A. Yale.

Miss YALE: Among all the interests of Mr Hubbard's life, possibly none extended over a longer period or was more deeply rooted in his rich nature than his interest in the education of the deaf. In this, as in many other departments of his activity, he seemed possessed of prophetic vision. In his own little child's

voice he heard the prophecy that deaf children might speak, and to him is due, probably more than to any other one man, the fact that all America has realized the fulfillment of that prophecy.

The results of the teaching of his own little child, made deaf by illness in early childhood, by means of lip-reading and speech, without the use of signs or the manual alphabet, were so satisfactory that Mr and Mrs Hubbard were confirmed in their opinion of the importance of very early instruction for deaf children and of the superiority of the oral method of instruction. They were most anxious that this method should be fairly tried and felt strongly that such trial could not be made satisfactorily in any of the already established schools, which employed the sign method and to which pupils were seldom admitted under ten or twelve years of age.

The story of Mr Hubbard's efforts to establish a school in Massachusetts, in which instruction should be given through lip-reading and speech alone, may most fittingly be told in his own words. He writes that previous to that time "the sign language was believed in this country to be the best and only efficient method of instruction for the deaf. The reports of the Hon. Horace Mann in favor of the German system of articulation had attracted attention, and gentlemen from our oldest institutions had been sent abroad to examine into the subject. Their reports were only partially favorable, and the efforts to engraft the German system of articulation upon the French system of signs then in use in our country proved a failure." So when in 1864 Mr Hubbard presented a petition to the legislature asking for a charter for a school, it was the first attempt to establish a school under the oral method in a country where for fifty years the sign method had been firmly established.

He says: "This application was opposed by the friends of the American Asylum, on the ground that it was a visionary project and attempting the impossible. Dr Samuel G. Howe, of South Boston, earnestly seconded the petition and appeared with me before the legislature. Our efforts were unsuccessful and our proposition was rejected. I determined to show that it was not a visionary project, and meeting Miss Rogers, who was then teaching a deaf girl by articulation, we determined to organize a small school, so that when we again appealed to the legislature we could show the results of our new system. A small fund was raised. Our plan was advertised in the papers and after

six or eight months we found six pupils, with whom we opened a school at Chelmsford, under the care of Miss Rogers."

Miss Rogers began teaching her first pupil a few months after the failure of the first attempt to establish a school. Mr Hubbard watched the work of this little school with most intense interest, for from the first the full import of the experiment seemed clear to his mind. If it was successful it meant speech for the deaf and the English language through speech; if it failed it meant a deeper silence and a strange language of signs used in place of the language of home and country. The success of the school exceeded their expectations, and in 1867 an effort was made to secure its incorporation. Mr Hubbard wrote: "Mr Talbot and myself called on Governor Bullock and asked him in his message to the legislature to refer to our school and favor an application we intended to make for a charter for it. To our great surprise, he told us that he had that morning received a letter from a gentleman in Northampton offering $50,000 if a school for the deaf could be established in Northampton."

Governor Bullock did refer at considerable length to the offer of Mr Clarke and recommended the establishment of a school for the deaf in the Commonwealth of Massachusetts. That portion of his message was referred to a special committee of the Senate and the House, of which the Honorable Lewis J. Dudley, of Northampton, was chairman on the part of the House. Long, earnest, and sharp were the debates held before the committee. The advocates of the sign method still felt that a fearful mistake was being made. The Massachusetts State Board of Charities, of which the Honorable F. B. Sanborn was secretary, heartily endorsed the movement toward the establishment of the new school. Mr Dudley had become a convert to the oral method and used his utmost influence to forward the movement. The act of incorporation was secured, and Mr Clarke expressed his purpose to give the school the bulk of his remaining property.

The little experimental school of Miss Rogers was closed. Its zealous and devoted teacher and her pupils became the nucleus of the Clarke school in Northampton, which opened in October, 1867. Mr Hubbard was made president of its corporation and for the first ten years of its existence gave the school much personal attention.

Then followed years when he lived much abroad and when his life was overcrowded with other interests; but wherever he was and however busied with other matters, he always found time to visit schools for the deaf and write of their methods and results.

When later he was more at home and less abroad, the old-time enthusiastic interest in the school seemed to be roused anew. He rejoiced in the growth and expansion of its work, its adaptation of kindergarten methods, its establishment of a training class for teachers, and most of all he rejoiced in the higher intellectual work accomplished, which made it possible for a steadily increasing number of pupils to leave the school, fitted to enter higher schools for hearing young men and women, and to pursue their studies as students simply, in a world of ordinary students, becoming a part of the great world of speaking people.

In 1890 the American Association to Promote the Teaching of Speech to the Deaf was founded by Dr Alexander Graham Bell, the husband of the little child whose need of special instruction first led Mr Hubbard to take an interest in the instruction of the deaf. The specific objects of its organization were to aid schools for the deaf in their efforts to teach speech by training teachers and by disseminating information in regard to methods of speech-teaching. Into Dr Bell's plans for this new organization Mr Hubbard entered with all the enthusiasm which he gave to his early work. He was its first vice-president, and the wisdom of his counsel and the strength of his purpose have done much to guide the association through the difficulties of its first years of work and to give it the position which it now holds as the most influential and effective organization connected with the education of the deaf in this country—probably in the world—its membership including, in addition to a large number of teachers, many other persons like Mr Hubbard and Dr Bell, who are most effective promoters of the work of the association.

The influence of these two institutions, in the founding of which Mr Hubbard bore so active a part—the Clarke school and the American Association to Promote the Teaching of Speech to the Deaf—has been most widespread, both in this country and in Europe. Today one-half of all the teachers in the schools for the deaf in America are teachers of articulation, and over one-half the pupils in those schools are taught speech.

Beyond these definite results the effect of the growth of oral teaching in this country has been most stimulating to the general work of the education of the deaf, and "at every turn and on every marked occasion the influence of Mr Hubbard has been felt in this expanding and liberalizing movement." Surely

the work and the workers must sadly mourn the loss of a leader and a friend, one clear of vision, strong of will, and kind of heart.

President BELL: Mr Hubbard, as a Trustee of the Columbian University, took, as we all know, a great interest in that institution, and I shall ask Dr Whitman, its President, to speak to us on its behalf.

President WHITMAN: Dr Hubbard was exceptionally happy in educational work. The Columbian University does not speak for itself alone when it emphasizes this phase of his influence, but it is able to speak with unusual emphasis from the fact that Dr Hubbard was an active member of its board of trustees. His name had an honored place on other boards of like character, but Columbian has been so situated that it has been able at all times to take advantage of his time and strength and influence. This makes it peculiarly proper that Dr Hubbard's educational work should be represented in a tribute from this particular institution.

The preparation of Dr Hubbard to serve educational interests was large and varied. His own academic and professional training made him familiar with general educational principles, and continuous service through a long and busy life kept him in touch with the progress of educational enterprise. His well-known intimacy with prominent educators both at home and abroad, his recognized standing as a patron of art and science and literature, his well-known leadership in the business world, gave him peculiar fitness for dealing with educational problems. This fitness it was the good fortune of the Columbian University to enlist directly in its service.

Two sets of ideas indicate clearly the services of Dr Hubbard to the University.

On the one hand there is a group of ideas—thoroughness, prudence, progressiveness. Dr Hubbard always insisted upon the obligation to go to the bottom of things, whether the matter under consideration was a course of study or a purchase of real estate. He always urged the importance of knowing just what the facts were; this, however, was simply part of his great habit of prudence. He was never an obstructionist, but he was never willing to go faster than conditions warranted. It was thoroughly characteristic of him that when a few days before his death he sent for a representative of the University that he might be acquainted with the progress of a movement looking to the radical

betterment of part of the University's property. The enterprise itself he heartily commended, but at the same time he insisted that it should not be undertaken until it was known where the means would come from to carry the enterprise to completion. This incident illustrates, perhaps, as clearly as a trait can be illustrated the general attitude of Dr Hubbard's mind toward work to be undertaken; in it thoroughness and prudence both speak. Happily, however, the habits of thoroughness and prudence did not make him unduly conservative; rather he was one of the most progressive of men. His mind was so well balanced that so far from suggesting obstruction, prudence with him was simply the basis of wise undertaking. He never cut loose from the base of supplies, but the base of supplies was for him also the base of vigorous operations leading to ever larger movement and ever larger conquest. Dr Hubbard had in marked degree the great gift of far-sightedness; his vision was large; his plans for an institution could no more be confined to the limits of a single city than his own life and influence could be. There were always fields beyond to be taken into account, and there was in his heart largeness of hope answering to the largeness of his vision; he was no pessimist. It was a sad, dark day for university work in Washington and everywhere when his large vision of things was clouded by death.

On the other hand, we have his life as manifested in the great virtues of integrity, trustfulness, sympathy. Integrity he possessed in large degree; it is simply the truth to say that his life was a life of integrity. Falsehood, deceit, double speaking, unfaithfulness of every kind was hateful to him. Clouding of issues he could not tolerate. A line of thought he developed with great clearness and power when engaged three years ago in committee work with reference to filling the office of president, then vacant, was simply the speaking out of his own sense of the importance of a clear conception of the purpose of the institution. Conversation had turned upon certain obligations of the University toward those who had founded it in prayer and sacrifice. Dr Hubbard insisted that these prayers and offerings should be held in remembrance, and that while the institution ought not to be regarded as an agency for the glorification of any body of Christians of any name, it ought beyond all question and beyond all doubt to be an agency for the furtherance of Christian education. When at the close of the last academic year, after long and painstaking canvass of the whole question, it was thought well to revise

the charter of the institution, Dr Hubbard worked indefatigably toward clearing up all doubtful questions, and heartily coincided with the Committee of Revision, on which he was serving, in their recommendation to the corporation that such changes should be made in the governing boards of the University as should clearly define all general issues and secure the most efficient oversight possible. It was not first a question of policy with him, but a question of right. Is it right that this should be done? And when he himself answered yes, he could add, and he did add, "If it is right, then it is wise." And when during the past year the University had to face the painful task of dealing with dishonesty in a trusted official, it was the sense of violated obligation that filled the soul of Mr Hubbard most with righteous indignation. His horror and contempt for theft and falsehood were the natural language of a soul which kept itself unsullied by insisting that the supreme rule of life is the rule of right. Naturally enough Dr Hubbard's integrity made him trustful of others; the presumption of honesty in the other man was always emphasized by him. Clear proof had to be given that his confidence was misplaced before that confidence was withdrawn. His own word meant his honor pledged, and he assumed that the word of the other man meant the other man's honor, too.

Withal, Dr Hubbard exhibited in marked degree the beautiful trait of sympathy. Many were not aware of this. They saw the man who had achieved success in his business and professional career and who gathered up unto himself lines of influence that made him a man of mark in the community; but those who were permitted to know him as a man were impressed by his kindliness of spirit, his willingness to sacrifice self for others, and his wonderful ability to enter into the joys and sorrows and ambitions of others. His life was a life of infinite detail along the most varied lines of interest; but all these details and interests did not make him forgetful of those who needed encouragement and help. It was a revelation to the man in question, but it was in every way characteristic of Dr Hubbard's kindly thought, that from his sick chamber he sent for a representative of the University, who did not dream that certain of his activities had been noticed, only to say to him these words, "You are working too hard." A thousand illustrations of this trait could be enumerated, but the one experience tells the whole story as clearly as a thousand could; and when one had once learned that the brusqueness which sometimes marked his speech had

no connection with his heart, but was rather to be interpreted by the twinkle in the eye that looked so kindly on the world, one had found the way to a rich store of sympathy and help. He admonished only when admonition was necessary; he warned and admonished and rebuked, but all was done with a kindliness that took away the sting. In all his life he never intentionally wounded a friend. He was no croaker; he was no faultfinder; he never scolded; he never complained. He shared his gifts without grudging. The most precious of all his gifts he gave most freely of all, and that was himself.

It is no wonder, then, that the Columbian University holds his name in grateful remembrance, for in that institution, as in the world outside, all respected him, and those who knew him loved him. His best monument is a community enriched and a world made better by his influence. All else decays; this abides forever, and in this the Columbian University gratefully records its part.

> "What is excellent
> As God lives is permanent. Hearts are dust.
> Hearts' loves remain."

President BELL: Mr Hubbard was President of the Society of Colonial Wars. I will ask Dr Marcus Benjamin, Historian of that Society, to speak on its behalf.

Dr BENJAMIN: Gardiner Greene Hubbard was twice Governor of the Society of Colonial Wars in the District of Columbia, and at the time of his death his name had been selected by the committee on nominations to head the list of the society's officers for a third time.

The society, which it is my privilege to represent on this occasion, is composed of descendants in the male line of those men who in a military or naval capacity or in high civil office rendered service in the wars of the American colonies from the time of the settlement of Jamestown, in 1607, to that of the battle of Lexington, on April 19, 1775. It has for its object the preservation of the memory of those forefathers whose public services made our freedom and unity possible.

It is not for me to attempt an account of the achievements that made Mr Hubbard so valuable a citizen to the world, for that has already been done by those who knew him more intimately; indeed, my acquaintance with him only began with his admission to the Society of Colonial Wars, in the winter of 1895; but if you will permit me, I will, in the short time at my disposal,

say a few words concerning those ancestors whose records Mr Hubbard filed with our society and of whose memory he was so justly proud.

The first of his forefathers to settle in the New World was William Hubbard, who sailed from London on the ship *Defence* and landed in Boston on October 6, 1635. He is believed to have been a gentleman of easy circumstances and the owner of much landed estate, but left his home because of a sense of irritation to his religious views, caused by the interference and restrictions then placed upon freedom of worship in England. Two years previous John Winthrop, the younger, had founded the settlement of Ipswich in the young colony, and here William Hubbard, who had come from the older Ipswich in Suffolk, made his new home. That he was a man of means is shown by the numerous purchases of large tracts of land that are recorded in the "Old Norfolk County Deeds." He was also a lover of learning, for in 1636 he became the founder and principal of the Ipswich Grammar School, giving one acre of ground for its site. The spot is still preserved, for the Cogswell school occupies today the acre consecrated to education more than two hundred and fifty years ago by the first of the Hubbards. This early pioneer was highly appreciated by his neighbors, for he was a deputy to the general court during 1638 and 1646, and held other public appointments. About 1652 he removed to Boston, and there he died in the summer of 1670, at the ripe age of seventy-six. He was regarded as "a very learned man, being well read in state matters, of a very affable and humble behavior, who hath expended much of his estate to helpe on this worke." Such was the ancestor through whom Mr Hubbard sought admission to our society.

Of greater fame, perhaps, was the second William Hubbard, the fourth child and second son of his parents. He was born in Essex county, England, and came to this country with his parents. While a resident of Ipswich he entered Harvard and received from that university the master's degree in 1642, in the first class that ever graduated from an American college. While in Harvard he studied medicine, but the church claimed him and he was ordained in 1658, becoming the pastor of the Congregational church in Ipswich, over which charge he continued until advancing years compelled his retirement in 1703. He was recognized as a scholar, a historian, and a divine, and was active in many concerns of public interest. His historical works are

painstaking records of the condition of New England between 1620 and 1630. They include a "Narrative of Troubles with the Indians," published in Boston in 1677, and a "History of New England," finished in 1680.

For the last-named work he received £50 as a "manifestation of thankfulness" from the general court, and the manuscript is still preserved in the library of the Massachusetts Historical Society. Cotton Mather in his "Magnalia" acknowledges his indebtedness to Mr Hubbard. He died in 1704, and of that event the record is still preserved in the following words: "He goes to ye lecture, after to Col. Apletons, goes home, sups, and dyes that night." The Reverend John Eliot refers to him as "equal to any in the province for learning and candour, and superior to all his contemporaries as a writer."

The line of descent continues through John Hubbard, who was born in Ipswich in 1648 and who in early manhood settled in Boston, where he became a leading merchant. In 1671 he married Ann Leverett, second daughter of Sir John Leverett.

To the career of this distinguished military leader a few words must be given. Born in England in 1616, he came with his father to Boston in 1632 and became a successful merchant. Early in life he was chosen captain of a militia company, and in 1644 he went to England to fight against the King under Cromwell. Later he returned to Boston and was chosen a delegate to the general court, also becoming a member of the governor's council. In 1671 he was appointed deputy governor, and two years later governor of the colony. Meanwhile his knowledge of military matters was recognized, and from 1663 to 1673 he was major general of the Massachusetts soldiers. It was during his administration as governor that King Philip's war occurred, and it was largely owing to his skill and energy that the war was brought to a fortunate issue. For his services in this direction Charles II conferred upon him the honor of knighthood.

Returning to the Hubbard ancestry, John, previously mentioned, had a son, born in 1677, to whom he gave the name of John. This second John was graduated from Harvard in 1695 and became pastor of the church in Jamaica, Long island, in 1698. He died in 1705, and is described as a man "of gentle disposition and greatly beloved by his flock, who deplored his early death." In 1701 he married Mabel Russell, granddaughter of Richard Russell and, on her mother's side, of Samuel Wyllis.

The Honorable Richard Russell was a man of much impor-

tance and most of his life was devoted to public service. He was born in Hertfordshire, England, in 1612, and came to Massachusetts in 1640. Four years later he was made treasurer of the colony, and held that place until his death, in 1674. Besides filling that important office, he was a member of the general court for many years, serving as its speaker in 1648–'9, 1654–'6, and 1659, and he was assistant during the years 1659 to 1674.

Mr Hubbard was sixth in descent from Samuel Wyllis in consequence of the marriage of his great-great-grandfather with Mabel Russell, and we pass from the records of Massachusetts to those of Connecticut.

Samuel Wyllis was a native of Warwick, England, and accompanied his father to the New World, settling in Hartford. He was graduated from Harvard in 1653, and a year later was elected one of the magistrates of Connecticut. In this office and the corresponding one of assistant under the charter of Charles II he was retained by annual election until 1685. It was on his estate, directly in front of his house, that the famous oak stood in which the charter of Connecticut was concealed in 1687. His death occurred in Hartford on May 30, 1709. Samuel Wyllis married Ruth, daughter of Governor John Haynes, and of whom a few words are necessary.

John Haynes was born in Hertford, England, in 1654. He was a man of wealth and culture and lived on his estate of Copford Hall in Essex before emigrating. In company with Thomas Hooker he sailed in the *Griffin* and arrived in Massachusetts in 1633. In the year following he was made a freeman and also an assistant, becoming governor of Massachusetts in 1635. Removing to Connecticut a year later, he settled in Hartford, and in 1639 was made first governor of Connecticut. Thereafter, until his death, in 1654, he was chosen governor every alternate year. Governor Haynes was one of the five authors of the first constitution of Connecticut in 1638, which embodies the main points of all subsequent state constitutions and of the Federal Constitution. He was a man of great uprightness and refinement of character, and of strong religious convictions. He tempered justice with mercy and had the power of making himself greatly beloved. His life was spotless and his character without reproach.

Of the six ancestors whose records were filed by Mr Hubbard in the archives of our society there still remains one to be mentioned, namely, the father of Samuel Wyllis.

George Wyllis was descended from an old and honored family, and was born in Warwick, England, about 1570. He received a liberal education and settled on a valuable estate in Knapton; but, espousing the cause of the Puritans, he sent his steward, William Gibbons, with twenty men to purchase an estate in Hartford, and on which to erect a suitable house for himself and family. Two years later he sailed for America, and at once on his arrival became an important member of the colony. He was one of the framers of the constitution in 1639, and at the first election that was held under it was chosen one of the six magistrates of Connecticut, holding that office until his death. In 1641 he was chosen deputy governor, and a year later was elevated to the higher office Governor Wyllis was famed for his social and domestic virtues, his simplicity of manner, and his love of civil and religious liberty. He died in Hartford in 1645.

It would be a pleasant task to mention other ancestors of Mr Hubbard, and even to continue his genealogical line down to himself. Moreover, it would be of interest to point out those traits of character that were inherited from his forefathers; but time will not permit.

It is axiomatic that "pride of ancestry is a natural and ennobling sentiment." Well might Mr Hubbard be proud of his ancestors. As educators, ministers, governors, and generals, their names stand out conspicuous in the annals of our American colonies; they were leaders of men. And of their descendant what shall we say? Equally was he a leader among men, and law, education, literature, and science have been advanced because of his life.

President BELL: Dr Daniel C. Gilman, President of Johns Hopkins University, was very dear to Mr Hubbard's heart, and he will speak upon him as a helper.

President GILMAN: I come forward tonight not as a neighbor, not as a colleague, not as a fellow-citizen, but as a friend, and I speak to you as friends. It is natural that we should regard the benefactors of society in groups, by the various services they render to their fellowmen. The gifts of genius are dramatists, poets, sculptures, pictures, buildings, and inventions; the gifts of wealth are hospitals, libraries, churches, colleges, and institutions; the gifts of wisdom are education, science, law, philosophy; but the gift that is best of all, the gift that smells sweet and blossoms in the dust, is the gift of one's self for the benefit of others.

Our departed friend, as every speaker has reminded you, gave himself almost without reserve during his residence in Washington and, as I have been told, throughout his long life to the advancement of good works. This title of remembrance is as comprehensive as it is honorable; he was a helper of his fellowmen. Time, money, effort, thought, suggestion, influence, the acquisitions of a long life and the experience of a versatile career, were at the service of any one who needed them. All classes and conditions of men were his clients; the writer, the editor, the preacher, the artist, the inventor, the investigator, the arbitrator, and the statesman turned to him for counsel, and never went empty away. Men of science trusted his good sense, men of affairs knew his sagacity, men of education depended upon his advice, philanthropists and men of religion were sure of his support. At home everything was for others; his books, engravings, etchings, and, in summer, his grounds, with their shrubbery, shade trees, and flowers, were given to hospitality. Nothing for display, but everything that strangers might be friends and that neighbors might become more friendly through the amenities of social intercourse.

In the city of his choice it was natural that a man of such breadth, of such varied observations in other lands, and of such eagerness for information should be best known as the founder of a society whose field is the world, and which believes that nothing human is alien, nothing in nature barren or dry. What plans he suggested, what persuasiveness he employed, what successes he won in bringing to the front the makers of geography, the interpreters of the earth, air, and sea, are all well known to one who has spent a winter in this capital, and best of all to you who are here assembled.

In the world at large he was regarded as an original promoter of that epoch-making invention which in twenty years has not only revolutionized the processes by which speech can be heard at a distance, but has completely changed the business usages of every country where civilization is found. To those who knew our friend only as a business man or only at a distance, this gives him fame. But there are others, like the speaker, who came near to him during the latter years of his life, and never heard him speak of business or allude to his successes, who never met him when his mind was not alert to promote a cause, to render a service, to encourage merit, to remove perplexities, or to find the right man. These seemed to be the occupations not of leis-

ure, but of life. Most noteworthy has been his devotion, as you have already been told, from an early period of his life, to the welfare of the deaf. He was one of the first to believe that they could be taught to speak with their lips, and he lived to see this belief transferred from the domain of faith to that of fact.

As I recall the manifold subjects I have heard him discuss, I know not which is the more remarkable, the range of his sympathy or the depth of his goodwill. The possible relief of Helen Kellar; now a rare print that he had acquired or an attractive book he was reading; now the Garfield hospital; now the memory of Abraham Lincoln, or the story of Napoleon Bonaparte, of Greely, Melville, or Nansen; now the promotion of international intercourse and the prevention of war; now the relief of the Armenians; the possible establishment of a National University; now the awards to be bestowed upon exhibitors at Atlanta and at Nashville; now and always the support of the Smithsonian Institution, the Geological Survey, and every scientific bureau supported by the Government.

The graces of a good ancestry, of a liberal education, and of wide intercourse with his fellowmen, and of a home where the refinement and affection of a devoted wife and children were supreme, enriched his life and adorned his character. His heart craved sympathy; he must keep in touch with those whom he trusted—by speech, by print, by mail, by wire. Few men valued friendship as he valued it, and the much that he required he returned with ample usury.

Public station would not have increased his influence nor added to his happiness; it would have fettered his spontaneity and his impulses. It is as dear friend; considerate, helpful, and strong, versatile and suggestive, that we who have known him well now call him venerable and beloved because he was the helper of his fellowmen.

President BELL: Mr Hubbard's great interest in the advancement of science in America led to the foundation of an independent scientific journal for the use of scientific men on this continent, and I shall call upon Major J. W. Powell, Director of the Bureau of American Ethnology, Associate Editor of *Science*, and ex-Director of the United States Geological Survey, to speak on behalf of the journal *Science*.

Major POWELL: This is an age of specialized literature. The daily papers serve a daily purpose; but when the day is gone the paper is gone. A flame is kindled twenty-four hours after

the issue of the daily paper in every home in America, and the yesterday's news is the origin of this household fire, but it comes to us freighted with power with the same regularity that longitudes wheel to the matinal light. Weekly, biweekly, monthly, and quarterly journals have a longer life. Within the last quarter of a century the magazine has become a forum in which public men find expression for their best thoughts to a large public, who wish to consider with care the current questions of the day and preserve the material thus utilized for future reference. For this reason it has come about that magazines have multiplied. All thoughtful people are now magazine readers. The daily press has become the mighty organ of current news, business life, and political affairs, while the magazine is the organ of current thought as literature and science. The daily paper, reviewing the daily affairs of life, makes comment on public men, public measures in the nation, the state, and the city. It pours out wit and humor, sometimes good, sometimes far-fetched, with a story for the idle and a syndicate letter for the inquisitive, which are read and forgotten, all going to the morning crematory.

Neglecting the magazine as the organ of literature and considering it as the organ of science, by a careful review of the subject it will be seen that the correlation of scientific research and the organization of scientific opinion is now largely dependent upon magazine literature.

In late years this new organ for the correlation of scientific research has sprung up. The heat, light, electricity, magnetism, and gravity of which the ether is the medium between celestial orb and celestial orb, the orbs themselves, of which the earth is a modest member, stealing its way through the universe by an unseen path, content with reflecting the light of others—the earth itself, with its moving atmosphere, hydrosphere, lithosphere, and centrosphere—all coöperate with the chemical agencies that are forever reconstituting the rocks of the earth, and these through their mantle of soil coöperate with living vegetal forms, and these again coöperate with the hosts of animate things. This vast system of coöperation between the hierarchy of bodies which constitute our solar system allies every man engaged in scientific research to every other man who studies the ways of nature. For the solution of the problems connected with every crystal, every plant, and every animal cannot reach their final solution without considering the whole world of bodies. One human mind cannot solve them all. Inductive research must consider

all of the multitude of particulars in every body, and those observed by one must be added to those observed by others before the induction is complete. Then deduction may enter the field for the final reconstruction of the external universe in a hierarchy of valid concepts representing the hierarchy of the universe until the universe itself shall be reproduced in every human mind.

Many men must work together to operate a railroad across the continent; but when coöperating, what feats of transportation they can accomplish. All the men of the world could not carry the freight from San Francisco to New York which could be transported by one railroad. Coöperation in scientific work is equally economic. The problems of the universe are to be solved, and they cannot be without the organized labor of research. To expect men to accomplish this labor without coöperation is like expecting men to gather the wheat of the prairie and carry it on their shoulders to the seaside mart; but a selected few of those laborers may easily perform the task when they are organized as railroad transporters.

By what agency can the men engaged in scientific research coöperate in the solution of the problems of the universe? Scientific men will solve these problems when they coöperate, for all problems can be solved after they are stated. One man may be an agnostic, but all men are not agnostic for all time; while much of the universe is unknown, the universe is not unknowable. The universe is unknowable only to the fool who would try to carry it in a sack on his own shoulder.

There is an army of men engaged in research in America which is but an integral part of the world's scientific men. In 1883 two men, Gardiner Greene Hubbard and Alexander Graham Bell, sought to more thoroughly organize the American army and put it in coöperation with the world's scientific host; for this purpose they essayed to organize a magazine or journal of science. They called to their aid President Gilman, of the Johns Hopkins University; Professor Marsh, of Yale College, and Professor Scudder, of Harvard. Mr Scudder was made the editor and the journal was launched on the sea of publication.

This journal was specialized in five departments: First, there was editorial comment on public affairs relating to the institutions of research in America; second, its columns were open to the discussion of scientific subjects by the leaders of thought; third, it was a medium for the announcement of discoveries;

fourth, it contained announcements of what men and institutions were doing in America; and, fifth, it contained a summary of the scientific progress of the world. In these five departments the two volumes of the first year contained a well-digested summary of the current scientific thought and accomplishment in America and throughout the world. This journal was called *Science*; and it had engaged in the labor of its preparation many men in the different departments of research employed in the preparation of materials for publication relating to all branches of work. It inaugurated the new era in America. Hitherto men had worked largely in isolation, without the sympathy and assistance of their fellowmen; few of them meeting once or twice a year for conference as the American Association for the Advancement of Science and the National Academy; but in the general isolation diversities of opinion sprang up and grew to unnecessary proportions, so that the infrequent meetings of scientific bodies were characterized by bitter discussion which often led to lifelong antagonism. Under the ægis of this journal there sprang into existence many more organizations, and the meetings of scientific men were multiplied and the differences of scientific men were harmonized; ultimate differences of opinion were modified and mollified and the whole spirit of research as exhibited on this continent was transformed; jealousies and antagonisms melted in the sunlight of publication. In the host of scientific workers there has always been a few men exploiting on the verge of research whose chief delight is in controversy and who consider that eminence can best be acquired by attacking their fellowmen. This modicum of malcontents were speedily relegated to the purlieus of disputation and the real workers remain to coöperate, encourage, and assist.

Since 1883 the journal has passed through many vicissitudes, and many experiments have been made with it in order that it might become self-supporting, and many efforts have been made to secure an enlarged clientage, but the first three volumes established the high-water mark of scientific journalism and are ideals for all future enterprises in this field. In this manner the founders of the journal, led by Mr Hubbard, contributed to the organiz ıtion of scientific research. In later years I had the honor to be called into their councils, and I know how earnestly they labored to make a magazine worthy of the scientific public, and wherein there was failure and wherein there was success. Mr Hubbard was the leading spirit in all this work and to it he gave

much time and profound thought. It was designed, not as a business enterprise, but as a contribution to science; not for the purpose of accumulating a property from which a revenue could be derived, but of establishing a means of communication for scientific men, to be presented to them as their journal.

In the library on Connecticut avenue and under the shadow of Twin Oaks Mr Hubbard was wont to assemble his friends in conference on scientific subjects; often the magazine was the theme under consideration; other interests of science were also considered. The hours which he spent with his friends in consultation from day to day, month to month, year to year, endeared him to an ever-enlarging circle of public men, for his sympathies were wide, his plans large, and the resources of his genius great, and, though he has gone, the works of his heart and mind will remain to bless mankind.

I could talk with a full heart of Mr Hubbard as a friend. Through many years at his home in the city and at his home in the country and in far-away lands and in long journeys across the continent I spent many hours with him, and while I honored him as a public man, and think what he has accomplished, these days and years have more than led me to learn to love him as a friend.

President BELL: Mr Hubbard was Vice-President of the Columbia Historical Society. I will call upon the Honorable A. R. Spofford to say a few words on behalf of that Society.

Mr SPOFFORD: The talents and energies of him whom we commemorate tonight embraced a wide and varied field. His active mind took in many subjects of inquiry, and his sympathy and aid were hospitably given to so many causes and objects of public interest that it is perhaps difficult to name any of the more important in which, at some time or other, his name and influence were not invoked. One of the more recently organized of the societies devoted to objects of research to which he belonged was the Columbia Historical Society. This association was formed March 7, 1894, at a meeting held at Columbian University, adding another to the historical societies, now numbering nearly three hundred, which have been organized with a view to preserve and perpetuate historical knowledge in the United States.

To this meeting, not being able to be present on account of absence from the city, Mr Hubbard sent a note through a friend who was a leading promoter of the movement, suggesting the possibility of some encroachment, in the new society to be organized,

upon the sphere of the Memorial Association of the District of Columbia, of which he was himself an active and earnest member. But, upon discussion of this suggestion by gentlemen present who were affiliated with both societies, it was the concurrent judgment of the meeting that the objects proposed for the Historical Society were of a much more comprehensive scope, embracing the wide field of investigation of the annals of Washington and the District of Columbia, its foundation, history (civil, literary, political, and ecclesiastical), biography, statistics, public works, education, and development generally. The special aim of the Memorial Association, on the other hand, was to preserve and commemorate historic buildings, marking by tablets or otherwise ancient landmarks, and endeavoring to perpetuate an interest in the past of Washington city by fitting memorials.

At the meeting following the preliminary conference referred to, namely, on the 12th of April, 1894, the Historical Society was fully organized. Gardiner G. Hubbard was one of the original charter members, signed the constitution, and was elected first vice-president of the society. His great preoccupation, however, with the work of other societies, and especially that of the National Geographic Society, over which he presided with such signal ability, prevented his attendance at the monthly meetings of the Historical Society, and for this he frequently expressed his regret. On May 29, 1894, feeling his inability longer to hold himself ready to discharge the duties of vice-president, he tendered his resignation of that office in a letter, assigning as a ground for his action that he was unable to give to its duties his personal attention. The resignation was accepted, and Hon. John A. Kasson was chosen vice-president in place of Mr Hubbard, and succeeded to the presidency, by election, after the death of Dr Joseph M. Toner, the first president of the society.

At a later day Mr Hubbard, continuing his membership, recommended to the society, in a letter of November 29, 1895, through the secretary, a lecture by Professor Lewis on "Lafayette and the Historians," which, however, was not delivered.

Regarding Mr Hubbard's life-long interest in historical subjects, those who knew him the best can best testify. An earnest student and a wide reader from early years, he was also a busy and intelligent collector of books. Upon the history of countries he read much and was unusually well informed. His many addresses and articles contributed to the Geographic Society evinced the breadth of his culture and the wealth of his knowl-

edge upon the history and resources, as well as the topography, of the regions treated by him.

It is pertinent for me to mention here, as an example of the thorough method of Mr Hubbard in treating the history of any subject, the elaborate article furnished by him to the *Atlantic Monthly* for January, 1875, entitled "Our Post-office." This historical article contains an admirable condensation of the facts regarding the postal system of the United States and its predecessors, the colonial and British post-office establishments. It draws many instructive parallels and points out the departures from the true objects of a governmental postal system, the quick and cheap diffusion of the people's correspondence and periodicals, through the carriage of mere merchandise in the mails, leading to large annual deficits. The article, although appearing in the pages of a periodical, is of great and permanent value.

The same may be said of another of Mr Hubbard's studies, upon a subject of greatest practical interest to the people, namely, his article on "Proposed Changes in the Telegraphic System," published in the *North American Review* for July, 1873. This presents a history of the various American lines of telegraph up to its date, and is a close and careful analysis of the whole system, with comparative statistics of the telegraph as managed by governments in foreign countries and by corporations in the United States.

Of Mr Hubbard as book-collector, art lover, and connoisseur others will doubtless make fitting record. His library was large and select, and his refined taste led him to make choice always of the best editions. Like most bibliophiles, he read many sale catalogues of books, imported liberally from many of the best book-houses in London and on the continent, and had a marked liking for fine bindings. In the graphic arts his knowledge and taste were of the first order, and his large collection of early and late engravings, etchings, etc., was one of the finest gathered by a private individual. These were the recreations of a busy man of affairs, and the collection, study, and illustration for the benefit of others (which he sometimes consented to offer in the form of an art lecture) were a source of constant gratification to his generous spirit.

President BELL: The Honorable John W. Ross, Chairman of the Board of Commissioners of the District of Columbia, will speak on behalf of the city of Washington and the District of Columbia.

Mr. Ross: The honorable part has been assigned to me of speaking of the late President of our society with regard to his business activities and as a citizen of the District of Columbia.

My last meeting with him was on an occasion when he was serving this people in a most effective manner. In the month of September, 1897, a committee of the National Educational Association came to Washington to consider its availability as the city in which to hold their next annual gathering. Through the courtesy of the proprietor of the Riggs house a banquet was given to the visiting delegates and to the local committees, in order that our citizens might confer with the representatives of the National Association and explain to them the exceptional advantages offered here in comparison with the other cities under consideration. Mr Hubbard was one of Washington's most influential champions at that meeting. As I recall the enthusiasm and earnestness with which he portrayed the great educational features of the capital, it is difficult to realize the truth that he was then about 75 years of age. To him and to the other resourceful promoters of our cause is due the gratifying result that Washington will, in July next, welcome the largest convention of educators ever assembled in the United States.

Amid all the cares and responsibilities which attended his useful life, Mr Hubbard never evaded any municipal duty. While he never sought preferment by the appointment of the executive officers of the District, yet his practical ability and his zeal were so generally recognized that successive boards of District Commissioners appreciated the fact that they served and promoted District interests by appointing him to positions of trust and responsibility. In May, 1896, he was selected as a member of the Tennessee Centennial Exposition Commission. In June, 1896, he was chosen a member of the board of trustees of the Free Public Library. In March, 1897, he was appointed one of the commission for the Omaha Exposition of 1898. He was also an active member of the board of directors of the Central Dispensary and Emergency Hospital. The duties pertaining to these positions were willingly assumed by him, notwithstanding his exacting engagements to the scientific societies of the District; and in so far as any work could be done, it was performed by him with fidelity and ability.

Next to the great cause of scientific research, he loved his adopted home. There was not a movement made having for its end the prestige, the adornment, or the development of the Na-

tional Capital which did not have his strong and sturdy support. From his beautiful home on the heights beyond Rock creek he had within his view that ideal site bounded by the Potomac, the Anacostia, and the commanding hills which border those streams whereon the wise foresight of Washington founded the chief capital city of the new world.

Every surrounding appealed to his keen sense of the beautiful and strengthened his conviction that Washington was destined to be the most superb of the world's capitals. He believed that as the one and only city belonging to all the people of the United States, as the official home of the President, of the Congress, and of the 15,000 Government employés from the States of the Union, it of right should, as to its facilities for the education of its youth, as to its healthful conditions and surroundings, as to its means of protection of life and property, and as to its promotion of the comfort and well-being of the public servants residing here, be the first and foremost of American cities; and that the members of the enlightened Congress of the United States, as its immediate custodians, should regard any impairment or lowering of that standard a slight and an insult to their own constituents. His high character and strong personality helped to impress these, his views, upon the national representatives with whom he was associated.

In the decease of Gardiner Greene Hubbard, therefore, the people of this municipality have suffered a grievous loss and bereavement. It may not be unfair to the living to state that there is no one quite so well fitted by temperament, by training, and by practical tact and ability to perform all the several rôles on the stage of human activity which he enacted so well. His tall and commanding form and the kindly tones of his voice will be missed wherever Washingtonians may assemble to foster and protect the best interests of the District of Columbia.

His name should and doubtless will, in time, be borne by some appropriate municipal building. We cannot hope even by all these tokens of respect and affection to give adequate expression to our sorrow or to our appreciation of his public service. The most eloquent tribute to his memory on the part of his surviving associates would be an emulation of his civic virtues and an effort to be as zealous, as sincere, and as patriotic as he was in the performance of every public duty.

President BELL: The last address of the evening will be made by General A. W. Greely, Chief Signal Officer of the United

States Army and Senior Vice-President of the National Geographic Society, on behalf of that Society.

Gen. A. W. GREELY: When I first came to know Mr Hubbard his years were such as had well won a right to rest, but with noble discontent he held the creed, "Old age hath yet his honor and his toil." How great that toil it has been for few to know; how great that honor in some way we felt before death touched him, but its full extent has only been revealed by this notable memorial meeting in the capital city of the Nation, of which he was so proud. The school, the library, the university, the Smithsonian Institution, the church—in short, all the varied elements of a Christian civilization, in which he was not only an actor but an inspirer—are distinct losers by his death. It is, however, the National Geographic Society that has a right to feel itself especially bereft, for this Society was the child of his old age, which had won his heart, for which he toiled at all seasons, and toward which, last of all, turned his thought and affection. His last months were filled with plans for the fit celebration of our tenth anniversary, which now lacks so much by his absence, but which also seeks inspiration for the future by a brief review of the past. Mr Hubbard was not only our President for these ten years, but he was also an initiator and an incorporator of the Society. At the original meeting, on January 13, 1888, there were present thirty-three individuals, who have increased to an aggregate membership of 2,421, of whom remain with us 1,572, the loss by death and resignation being 849.

In his introductory address of February 17, 1888, Mr Hubbard set forth the aims and objects of the Society on broad and generous lines, thus insuring growth and success. He said, "I am one of those who desire to further the prosecution of geographical research. We hope to bring together, first, the scattered workers of our country; second, the persons who desire to promote their researches."

The work was to be patriotic, educational, and scientific. How far it succeeded is rather a record of facts than an expression of opinion. It appealed to the spirit of patriotism by the establishment of two departments, the Geography of the Air and the Geography of the Sea, representing the two allied branches of meteorology and oceanography that owe their initial formation to the genius and activity of Americans. To this Society is due the credit that America was fittingly associated through the means of a Geographical Conference at the Columbian Exposi-

tion at Chicago, an exposition that celebrated contemporaneously the discovery of America and the birth of modern geography. Again, at the meeting of the British Association for the Advancement of Science, at Toronto, this Society upheld the dignity of our country by a series of geographic papers that won the generous praise of European scientists. Conjointly with other American societies, it played a conspicuous part in the proceedings of the International Geographic Congress in London in 1895. On this last occasion, it may be added, it excited attention by the presence of women as delegates, thus emphasizing our broad spirit of indiscrimination in advancing science by the coöperation of all willing workers and promoters. The Lenten lectures of 1898, Mr Hubbard's last plan of work, will do patriotic service by bringing to our members an appreciation of the advantages and a pride in the evolution of the great and varied sections that constitute the American Union.

On educational lines the Society has striven, not with the greatest success, it must be said, to stimulate proper geographic instruction in schools and universities. It has also added to geographic literature a series of monographs, written by eminent specialists, which have elicited praise from foreign scientists that must bear good fruit in their use by American teachers. Our regular winter course of lectures, by eminent specialists and on timely topics, exceed in number, variety, and utility those furnished by any other geographic society in the world.

In science this Society has done important work, if only in forming under governmental auspices a Board on Geographic Names. In our technical meetings have been presented and discussed papers of great value, and the influence of many of these papers has been extended by their publication in THE NATIONAL GEOGRAPHIC MAGAZINE.

Among other important work should be noted the encouragement of exploration in Alaska, the establishment of THE NATIONAL GEOGRAPHIC MAGAZINE, now in its ninth year, and the instituting of geographic field days.

Finally, we have a right to ask, Could any organization in the first ten years of its existence more fully carry out its initial plan than has this Society? In deserving and winning this success no other member did so much as did Mr Hubbard. Dealing with a Board of Managers composed of able but positive men, it was Mr Hubbard's strength that he was receptive, conciliatory, and practical. Many a seemingly hopeless idea he

changed into practical form, and often from conflicting opinions he evolved an acceptable plan.

It would be placing Mr Hubbard's labors on a low plane to say that this Society throve only by them. He had the higher aim to interweave his labors with others, and so to plan and build that he might exert an enduring influence. This higher work he accomplished. We feel that the future of this Society is not doubtful; that it will continue to maintain its high ideals of public usefulness by fostering patriotism, by stimulating education, and by advancing science. Thus it will best show its active appreciation of the labors of Gardiner Greene Hubbard, and in thus doing justify the poet's words:

"So when a great man dies,
For years beyond our ken
The light he leaves behind him lies
Upon the paths of men."

President BELL: The meeting is now adjourned.

PROCEEDINGS OF THE NATIONAL GEOGRAPHIC SOCIETY, SESSION 1897–'98

Regular Meeting, December 17, 1897.—Vice-President Greely in the chair. The Chairman spoke of the recent death of President Hubbard and announced that a committee had been appointed to make arrangements for a memorial meeting. He also stated that Mr Everett Hayden had resigned the office of Recording Secretary, and that Mr F. H. Newell had been designated to fill the vacancy. Professor D. G. Elliot, of the Field Columbian Museum, gave an illustrated lecture entitled "A Naturalist's Expedition to East Africa."

Special Meeting, January 7, 1898.—Mr W J McGee introduced with appropriate remarks the new President, Dr Alexander Graham Bell, who took the chair. Mr H. Snowden Ward gave an illustrated lecture entitled "Shakespeare at Home."

Regular Meeting, January 14, 1898.—President A. Graham Bell in the chair. Surgeon-General George M. Sternberg gave an illustrated lecture on the Geographical Distribution of Yellow Fever.

Special Meeting, January 21, 1898.—President A. Graham Bell in the chair. This was a memorial meeting in honor of the services and character of the late President Gardiner G. Hubbard. About 1,000 members and guests were present. Addresses were made by Surgeon-General Sternberg, U. S. A.; President Wilson, of Washington and Lee University; President Whitman, of Columbian University; President Gilman, of

Johns Hopkins University; Dr Marcus Benjamin, Hon. A. R. Spofford, Dr Caroline A. Yale, Professor S. P. Langley, Hon. John W. Ross, Major J. W. Powell, and General A. W. Greely.

Regular Meeting, January 28, 1898.—President A. Graham Bell in the chair. Mr N. H. Darton gave an illustrated lecture on the Bad Lands of South Dakota and Nebraska.

ELECTIONS.—New members have been elected as follows:

December 14.—Miss Mary O. Dean, Mrs Annis H. Enochs, Lieut. C. D. Galloway, U. S. N., Alexander Grant, Mrs Gardiner G. Hubbard, E. G. Kimball, Gerard H. Matthes, E. W. Nelson, Professor Henry S. Pritchett, Charles H. Stevenson, Miss Mary A. Taylor.

December 27.—Elmer I. Applegate, Major E. S. Godfrey, U. S. A., William Ogilvie, W. H. Wiley.

December 31.—Dr Arthur M. Edwards, F. F. Hilder, Professor W. H. Norton.

January 7, 1898.—Miss Rachel C. Brown, Cyrus L. Hall, Dr F. C. Kenyon, Miss A. M. Lakeman, Heber J. May.

January 14.—William Churchill, S. F. Emmons, Miss Margaret French.

January 24.—Miss Mabelle Biggart, Miss Mira Lloyd Dock, Levi Maish, Daniel P. Mumbrue, August Piepho.

GEOGRAPHIC LITERATURE

Stanford's Compendium of Geography and Travel. North America, Vol. I; Canada and Newfoundland. By Samuel Edward Dawson. Pp. 719, with 18 maps and 90 illustrations. London: Edward Stanford. 1897.

This work forms part of a revision of Stanford's Compendium, the first edition of which was published in 1883. In that edition Canada and the United States occupied one volume. In the present the Dominion occupies, with Newfoundland, one large volume, being more than doubled in size. The book is simply a geographical description of the British possessions in North America. Its first chapter, after the introduction, describes the American side of the north Atlantic. Then the Dominion of Canada is taken up as a whole—its extent, area, boundaries, relief, drainage system, climate, fauna, Indian tribes, political organization, population, means of communication, government, history, and industries. Each of the provinces is then described under much the same plan, but in greater detail, in succeeding chapters. This method of description involves much repetition, greatly and unnecessarily extending the book. An interesting chapter is included in the history of Acadia. The illustrations and maps are excellent and the type and paper all that could be desired. Altogether, the work, as a description of our northern neighbor, is easily the best yet published. It is curious to find, however, at this late date any one gravely contending for the preposterous claims of Great

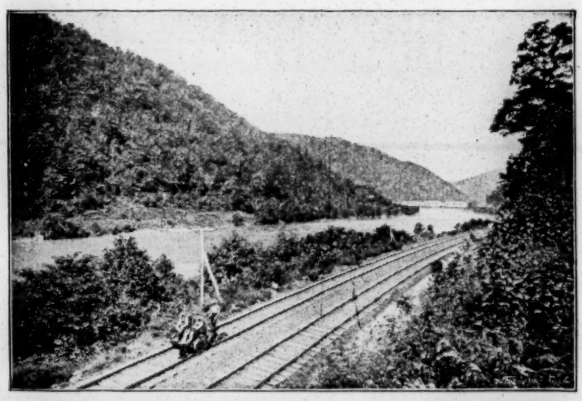
Britain in regard to the international boundary on the north of Maine, as is done by the author of this book. The story may be briefly told: By the treaty of peace at the close of the revolution that boundary was placed, in terms, on the divide between the Atlantic and the St Lawrence. No sane, disinterested person could interpret this otherwise than as meaning the divide north of St Johns river; but Great Britain, with her accustomed modesty, claimed that the divide referred to was that between the Penobscot and the St Johns. The matter was finally referred to the King of Holland, who split the difference between the conflicting claims and placed the boundary on the St Johns river. And now our author pleads that Great Britain fared hardly under this decision. H. G.

A pamphlet recently issued by Dr E. L. Corthell, C. E., entitled "Remarks Before the Committee on Rivers and Harbors," contains a history of the jetties at the mouth of the Mississippi and a statement of the dangers to which navigation is now subjected at that point. Twenty-five years ago New Orleans was well-nigh cut off from the sea by reason of bars which had been deposited at the mouth of the passage. Southwest Pass, then the broadest and deepest, had a depth of water at its mouth of barely 18 feet. To remedy this it was proposed by the Board of Army Engineers to canalize the Southwest Pass, at a cost of eleven and a half million dollars. In opposition to this Mr James B. Eads proposed, at his own risk, to build jetties and maintain a channel 30 feet deep. After a long struggle Mr Eads' proposition was accepted, with certain modifications, the principal of which was that South Pass, a much narrower and shallower outlet, should be taken, and that a depth of 26 feet, or a breadth of not less than 200 feet, should be opened and maintained. Every one knows the triumphant success of Mr Eads' project, that the river has cut away its bar at the mouth of South Pass, and a depth of 34 feet has been maintained through South Pass for a score of years. Now, however, these improvements are seriously threatened. In 1891 a crevasse was cut through the low bank just above the head of South Pass, and through this crevasse a large proportion of the river's water is pouring to the Gulf, so large a proportion that a sufficient flow cannot be obtained through South Pass to keep the channel clear, and it is rapidly silting up. The Eads executors have spent, in attempts to close this crevasse, $145,000.

H. G.

MADAGASCAR. A steamship line has been organized between Havre and Madagascar. The telegraphic system of the island is being rapidly extended.

SWITZERLAND. The total value of importations into Switzerland in 1896 was $191,814,822, or $58,980,443 in excess of the exports. Germany furnished 30.7 per cent of the imports and took 25 per cent of the exports, France following with 17.9 and 11.8 per cent, Italy with 13.8 and 5.7 per cent, Great Britain with 5.2 and 21.4 per cent, the United States with 4 and 10.3 per cent, and Austria-Hungary with 7.2 and 5.9 per cent respectively.



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